

REMARKS

Claims 20-31 and 49 were pending and examined on their merits.

Claims 20, 30, and 49 are amended to specify a linking channel that is divided once by microstructure units into more than two part channels (7) immediately prior to opening into the mixing zone. Support for the amendment may be found in the examples. All examples in the specification show linking channels that are divided only immediately prior to opening into the mixing zone (i.e. divided only once).

New claim 50 is added and recites a packaging system as recited in claim 20, except that each of the part channels (7) has a length that is sufficient for flow control but which minimizes pressure for a given throughput. Support for new claim 50 is found, for example, in the specification as originally filed in the last paragraph on page 2.

New claim 51 is added and specifies that a length-to-width ratio of each of the part channels (7) is 8:1 to 12:1 and a width of each of the part channels (7) in claim 51 is from 5 μm to 250 μm . Support for new claim 51 is found, for example, in the specification as originally filed in the last paragraph on page 2 and the second full paragraph on page 3.

The specification is amended to provide a more accurate translation from the original German language application. In the context of the present specification, "strömungsgeschwindigkeit" is more accurately translated as "flow velocity" than as "flow rate."

No new matter is added.

Claims Rejections 35 U.S.C. 103

Claims 20-30 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrfeld et al. (US 2003/0039169 A1). Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ehrfeld et al. (US 2003/0039169 A1) in view of Pardikes (US 6,207,719 B1). The Examiner's rejections have been carefully considered.

I. Applicant argues that claims 20-30 and 49, as amended, and new claims 50 and 51 are patentable over Ehrfeld because Ehrfeld does not teach or suggest a linking channel that is divided once, but is sequentially bifurcated (abstract and [0012]). The minimal sequential bifurcation required according to Ehrfeld is a two stage bifurcation, which inherently requires that a linking channel be separated or divided two times.

II. Applicant argues that claims 20-30 and 49, as amended, and new claims 50 and 51 are patentable over Ehrfeld because Ehrfeld does not teach or suggest a linking channel that is divided once into more than two part channels. Ehrfeld teaches a micromixer that requires a specific linking channel geometry that correlates with the function of providing identical volumetric flows for each fluid at the respective microchannel outflows (abstract, [0012], [0051]). Consequently, any modification of Ehrfeld to divide a connecting channel once in any way other than to split that channel into two identical part channels would be completely and explicitly contrary to the operating principle upon which the Ehrfeld mixer operates.

III. Regarding the rejection of claim 31, Applicant argues that Pardikes does not remedy the failure of Ehrfeld to teach or suggest a micromixer comprising a linking channel that is divided once into more than two part channels because Pardikes does not teach a micromixer but teaches an unrelated method of forming a paper coating.

In view of the foregoing arguments, Applicant respectfully requests that the rejection of claims 20-31 and 49 under 35 U.S.C. 103(a) be withdrawn.

Conclusion

The application, in its amended form, is believed to be in condition for allowance. Action to this end is courteously solicited.

Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call in order to discuss appropriate claim language that will place the application into condition for allowance.

Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'Michael J. Striker', with a long horizontal flourish extending to the right.

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